

## Public-Private Partnership as a Tool to Promote Curriculum Development in Technical Vocational Education and Training (TVET): A Case of Rift Valley and Western Kenya Regions

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**Abstract:** TVET is very cardinal to any economic development of the country. It serves to prepare learners with the skills they need to succeed in the workforce and is the candle of hope lighting the darkness of political inefficiency, poverty and human degradation. Therefore, the development of curricula content and their implementation is one of the key competences of instructors in the area of educational planning and practical training for Technical and Vocational Education and Training (TVET) institutions in Kenya. The TVET sub-sector continues to be challenged by inflexible and outdated TVET curriculum, mismatch between the skills learned and the skills demanded by industries, inadequate mechanism for quality assurance, Low participation of private sector in the curriculum design and development. Therefore, the present study sought to evaluate the role of public-private partnership in enhancing curriculum development in TVET institutions within Rift Valley and Western Kenya Regions. Multiple case-study design was adopted for the study. Purposive and snowball sampling techniques were applied to select TVET and enterprise officials respectively. Questionnaires and interview guides were used in data collection. Data collected was analyzed using Multiple Attribute Utility Theory, (MAUT) and results presented in tabular and graphical forms. It was found out industry players were not involved in the reviews and curriculum reviews was reported to be too. The frequency at which curriculum reviews were carried out was reported to be very low at 5 representing 12.5 %. The use of resource persons from enterprise in curriculum instruction is also very low at a frequency. The study also reported low donation of instructional materials from enterprises. Therefore, curriculum planners should review curriculum at regular intervals in the light of needed skills in modern industries.

**Keywords:** Curriculum Development, Public-Private Partnership, Technical Vocational Education and Training.

## INTRODUCTION

Vision 2030 singles out education and training as the vehicle that will drive Kenya into becoming a middle-income economy. Recently, Technical and Vocational Education and Training (TVET) has become a subject for discussion at summits, academic conferences and at policy circles in other developing countries including Kenya. TVET institutions facilitate the acquisition of the practical and applied skills as well as basic scientific knowledge [1]. It must be accentuated that Kenya cannot compete in the knowledge- driven 21st century global economy with poorly educated and unskilled workers. Thus, in recent years, there has been a heightened interest and concern about enhancing the involvement of the private sector and the community in the development of TVET. Globally, UNESCO-UNEVOC has undertaken various activities in order to engage the private sector in the field of TVET [2]. The engagement provides an

opportunity for the corporate sector to share experiences in using education, training and capacity building interventions as strategies in achieving the sustainable development goals of companies with a view to developing principles and processes for encouraging the wider adoption of Technical, vocational education and training (TVET) plays an essential role in promoting knowledge and skills development of workers. However, TVET has long been considered by UNESCO as a key area in education that is continuously facing challenges in preparing workers with dynamic knowledge [3].

A TVET is very cardinal to any economic development of the country. It serves to prepare learners with the skills they need to succeed in the workforce and is the candle of hope lighting the darkness of political inefficiency, poverty and human degradation. It could be truly said that a country's

development and progress (ability to combat global economic crisis) largely depends on the availability and quality of its human resources, people with the right skills and the right attitude (TVET skill) [4].

Rauner [5] explained that the development of curricula and their implementation is one of the key competences of instructor in the area of educational planning and practical training for TVET institutions and industry. According to Republic of Kenya 2005, the TVET sub-sector continues to be challenged by inflexible and outdated TVET curriculum content, Mismatch between the skills learned and the skills demanded by industries, inadequate mechanism for quality assurance, Low participation of private sector in the curriculum design and development.

According to Nyerere [6], TVET system in Kenya is characterized by weak curriculum that is not flexible enough to meet the technological changes and diverse needs of different clients, poor instructional methods, outmoded/inadequate training equipment and lack of meaningful work experience and supervision during attachment. As a result, the quality of TVET graduates has continued to decline in recent years to an extent where graduates of TVET experience technology shock when they finally enter the job market partnership between TVET and industry players is beneficial to both parties.

Curriculum development should be a share responsibility of both public and private sectors that are to employ the students when graduated. Potential private employers supposed to contribute the qualities and characteristics of workers needed to educational planners and curriculum developers who are to input them into curriculum. The process of curriculum development for TVET in Kenya is coordinated by Curriculum Development Assessment and Certification Council (TVET CDACC) which is a body created by TVET. The process of curriculum development within the new paradigm of competency based education and training provides particular challenges due to the nature of collaboration and partnership. Some of the barriers to effective curriculum change within partnership contexts, such as cultural disparities and the diversity of expectations between the stakeholders [7].

However, the absence of partnership, between industry and TVET institutions, portends great disadvantages to both parties. To the Technical education and training, it will fail to generate qualified skilled workers, and to the industries, it will be forced to invest in providing in-house training for their workers, or to take the risk to hire unskilled workers who produce low quality products. In the end, the society will have to pay more for this inefficiency, to cover the costs of unproductive technical institutions and higher prices for goods because of inefficient workers. The situation will cause negative impacts to

both the human resources development and the national economy [8]. Therefore, the present study sought to evaluate the effect of public private partnership (PPP) on curriculum development in TVET institutions within Rift Valley and Western Kenya regions.

## **RESEARCH METHODOLOGY**

### **Research Design**

According to Kothari [9] research design refers to the plan or procedure for gathering information, indicating the steps and how the research is going to be carried out in the search for the answers that the researcher is seeking guided by a conceptual structure. The multiple case-study method was used in this research. A multiple case-study enables the researcher to investigate differences inside and between cases with the aim of replicating finding across cases

### **Study Population**

The population involved in this study were staff members of TVET institutions and selected industry partners.

### **Sampling and sample size determination**

In considering the TVET institutions for the study a sample comprising of twelve TVET institutions (representing 31% of the entire population) was selected for the study. Purposive sampling was used in selecting participants from TVET institutions. Administrators who were actively involved in activities focused on promoting partnership within the training context were considered. They included, Principals, Deputy Principals, Academic Registrars, Directors in charge of Research and Extension, Liaison Officers and Heads of Departments. Snowballing was considered suitable method of sampling Enterprises. Public relations officers and Training managers were also interviewed.

### **Data collection instruments**

Two research instruments were applied in this research. A self-administered questionnaire in which the respondents complete the questionnaires themselves and interview guide. The TVET trainers' and enterprise questionnaires were the main data collecting instruments for all TVET trainers and industry officials. The guide enabled interviewers to ask the same questions in a consistent manner. Order to obtain more complete and comprehensive data the guide was designed to have both structured and open-ended questions. This study used the interview guide to obtain information that was considered relevant for TVET enterprise partnerships

### **Validity and Reliability of research instruments**

Validity is the extent to which a test measures what should quantify, its precision and weightiness of deductions, which depend on exploration results [10]. Is the degree to which results acquired from the investigation of the information really speak to the

issues under study? Content validity was controlled by making coherent connections amongst inquiries and the targets of the study. The exploration instruments were additionally introduced to the supervisors for their recommendation and fitting changes made before the study.

Reliability is the extent to which the measure of a construct is predictable or consistent [11]. A pilot testing involved a small scale study designed to test logistics and gather information prior to a larger study. In this study pilot testing exposed deficiencies in the design and procedure anticipated for the study. Trainers and heads of sections and departments from selected TVET institution and Enterprise in Uasin Gishu County were used as in pilot testing. The data obtained during the pilot test were subjected to statistical analysis to determine their reliability

### Data Analysis

Multiple Attribute Utility Theory, (MAUT) formed the basis for data analysis in this research. MAUT was used to rescale a numerical value on some partnership attributes of interest on a scale of 1 to 10,

with 1 representing the worst preference and 10 the best. The end result is a rank ordered evaluation of alternatives that reflects the decision maker's preferences. The adoption of MAUT concepts in this analysis permitted the assessment of partnerships to be mapped on related tools such as the Goal Achievement Matrix (GAM) technique, Influence and Importance Matrix (IIM), and the Interaction Matrix (IM) technique. Analyzed results were finally presented in form of tables and figures.

## RESULTS AND DISCUSSION

### Demographic information of the Respondents

Demographic Characteristics of TVET institution considered relevant to this study includes: - characteristics of respondents, TVET institutions categorization and enrolment, the nature, forms and types of active partnerships.

### Demographic information about TVET Institutions

This study sought information on TVET institutions categorization, nature/forms/types of active partnerships. Table-1 below indicates the categorization in TVET institutions under the study.

**Table-1: Summary of TVET Institutions Categories**

Category	Frequency	Percentage
National polytechnics	3	25%
Institute of Technology	2	16.6%
Technical Training Colleges	5	41%
Vocational Training Colleges	2	16.6%
<b>Total</b>	<b>12</b>	<b>100%</b>

The findings show that the study covered both layers of TVET system in the area under study from national polytechnics to the newly established vocational training colleges.

### Demographic information of TVET Respondents

This study sought and categorized TVET respondent's based on their administration responsibilities and partnership activities. The Findings obtained are as summarized in Table-2.

**Table-1: Categorization of TVET Respondents**

Category	Frequency	Percentage
Principals	7	17.5%
D/Principals	6	15%
Registrars	8	20%
Director of Research	1	2.5%
HODs	15	37.5%
Industrial Liaison Officers	3	7.5%
<b>Total</b>	<b>40</b>	<b>100%</b>

Out of 40 respondents, 7(17.5%) were principles, 6(15%) were deputy principles, 8(20%) were Registrars, 1(2.5%) was a director of research and innovations, 15(37.5) were heads of departments while 3(7.5%) were industrial training liaisons officers. The findings show that administrators in varied positions in

TVET were involved in one way or another in partnership activities.

### Forms of TVET Partnerships

Out of the 65 active partnerships only 31 representing 48 % was formalized by way of MOU and the remaining 34 representing 52 % were not formalized as shown in Figure-1.

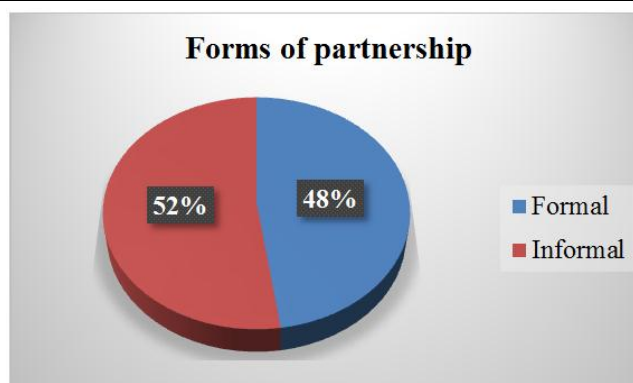


Figure 1: TVET Partnership Forms

The low level of involvement by Informal local enterprises such as Community organizations can be attributed to their low capacity and organizational mechanism

### Performance of TVET and Enterprise Partnership in Curriculum Development and Validation

In order to find out the extent at which TVET institution and Enterprises performed in curriculum development and validation processes, the respondents were asked to respond to structured questions related to curriculum development and validation. The structured questions were grouped into three sub variables of the curriculum development process namely; participation in curriculum reviews, use of resource persons and donation of instructional materials. Descriptive analysis technique in form of counts, frequencies and percentages was used to illustrate partnership activities

in curriculum development. Table-3 is a summary of the findings obtained from the study.

The finding gives a gloomy picture concerning the contribution of enterprise in the current KICD curriculum which is in force only 5 representing 10% of the respondents believe that industry players were involved in the reviews. The use of CBET framework proposed by TVET-CDACC during curriculum reviews was reported to be too low with a frequency of 6 representing 15%. The frequency at which curriculum reviews were carried out was reported to be very low at 5 representing 12.5 %. The use of resource persons from enterprise in curriculum instruction is also very low at a frequency of 3 representing 7.5 %. Concerning donation of instructional materials a frequency of 9 representing 22.5% of TVET institutions had received such donations from enterprises (Table-3).

Table-3: Performance of TVET partners contribution to curriculum development

Perceived performance in Selected Curriculum development and validation aspects	Frequency	Percentage
Participation of enterprise/industry players in KICD curriculum reviews	4	10%
Use of CBET framework proposed by TVET-CDACC during curriculum reviews	6	15%
Use of resource persons from enterprises in curriculum instruction.	3	7.5%
Curriculum Instruction materials received as grants or donations from enterprises	9	22.5%
Frequency at which curriculum reviews	5	12.5%

According to Trim [7], TVET-private interaction provides a highly effective mechanism to generate feedback based on employer demands to meet half-way in the design of academically-sound and industry-oriented curricula. The study further elaborated that this kind of interaction has resulted in the creation of such opportunities like offering of sandwich courses, development of courses jointly developed and certified under I-I tie up, joint continuing courses and periodic curricula update in relation to industrial trends and projections. Suffice it to say, there is a need to review and modify curricula and teaching and learning styles of various disciplines to accommodate technological changes, management practices and needs of the labor market.

A study by Comyn and Barnaart [12] reported that private partnership makes significant inputs into

TVET training standards, curriculum and delivery. Since enterprises are mostly like to be operating within the state of the art technology, they should be included on curricula panels to participate in curriculum development [13].

This situation is most likely caused by differing goals between TVET institutions and Enterprises. As noted in the literature review, Trim [7] pointed out that the most successful partnerships occur where institutions have similar value systems. The value system and aims of the enterprises are inclined to profits while TVET institutions remain rigid in the face dynamic curriculum development.

Results on interviews further showed that most respondents believe that the KICD syllabus which is currently in force does not have a lot of input from the

industry/enterprise. Another observation that was captured across the divide was that there exists a disconnect between KICD which is the body responsible for curriculum development and KNEC which is the examining body. Two institutions under study reported cases where the candidates were examined in areas beyond their scope. The registrar of one of the institutions had this to say:-

*Sometimes the Kenya national examination council sets exams outside the syllabus. I have witnessed a situation where a design question which is ideally meant for diploma students and above was given to artisan students*

One trainer when asked what he was doing to bridge the gap between curriculum specification and adoption of new technologies in the industry had this to say:

*You know even us we were taught a lot of theory with little link to the new technologies but what I am doing is to be a bridge myself by sneaking in the new technologies I see in the market in class because I don't have a say in changing the syllabus*

One principal reported a case in which KICD demanded a whopping KSh 24, 000,000 (Twenty four million) to approve a curriculum they had labored to draft. The findings portray a picture of a system where the input of the enterprise in curriculum development process does not get the requisite attention it deserves.

Generally, results showed that TVET partners played a role in performance of curriculum development and validation aspects. The findings are attributed to the fact that the mechanisms to involve enterprise representatives in formulating the curriculum and teaching and learning systems open productive platforms for industry-institute interaction.

Many countries in the Asia-Pacific region have introduced a competency-based curriculum in TVET to ensure appropriate adaptation to rapidly changing labour market needs [14, 15]. Countries such as Chile, Colombia and Mexico reformed their initial TVET systems using a competency-based curriculum concept.

## CONCLUSION

The finding gave a gloomy picture concerning the contribution of enterprise in the current KICD curriculum which is in force. The frequency at which curriculum reviews were carried out was reported to be very low and involvement of enterprise was reported as dismal. Many practitioners believed that the process is centralized at KICT headquarters in Nairobi. Therefore, curriculum planners should review curriculum at regular intervals in the light of needed skills in modern industries. In addition, there is need to decentralize roles, power, and authority of Technical Vocational

Education Training Authority (TVETA), Curriculum Development Assessment and Certification (CDACC) to county levels by demarcating clear roles and creating opportunities for participation of industry sectors in those decentralized bodies.

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